IN THE CLAIMS:

The following is a complete listing of the claims in this application, reflects all changes currently being made to the claims, and replaces all earlier versions and all earlier listings of the claims:

Claim 1. (previously presented): A stacked photovoltaic element comprising a plurality of unit photovoltaic elements each composed of a pn- or pin-junction, connected to each other in series,

wherein a zinc oxide layer is provided between two consecutively stacked unit photovoltaic elements, and the zinc oxide layer has resistivity varying in a thickness direction thereof, and

wherein both surfaces of the zinc oxide layer are in contact with different unit photovoltaic elements, and a resistivity of the zinc oxide layer on the surface in contact with a unit photovoltaic element near a substrate as seen from the zinc oxide layer is higher than a resistivity of the zinc oxide layer on the surface in contact with a unit photovoltaic element farther from the substrate as seen from the zinc oxide layer.

Claim 2. (original): The stacked photovoltaic element according to Claim 1, wherein zinc oxide of the zinc oxide layer on a side of being in contact with a p-layer of the pn- or pin-junction has a higher resistivity than that on a side of being in contact with an n-layer of the pn- or pin-junction.

Claim 3. (original): The stacked photovoltaic element according to Claim 2, wherein a resistivity of the zinc oxide continuously decreases in the zinc oxide layer from a side of the zinc oxide layer in contact with the p-layer towards a side of the zinc oxide layer in contact with the n-layer.

Claim 4. (previously presented): The stacked photovoltaic element according to Claim 1, wherein a resitivity of zinc oxide of the zinc oxide layer is 2100 Ωcm or more but 5103 Ωcm or less.

Claim 5. (previously presented): The stacked photovoltaic element according to Claim 1, wherein a high resistant portion of zinc oxide of the zinc oxide layer has 5102 Ωcm or more but 5103 Ωcm or less.

Claim 6. (original): The stacked photovoltaic element according to Claim 1, wherein at least one of the plurality of the unit photovoltaic elements has a pin-junction comprising an i-type layer composed of amorphous Si:H.

Claim 7. (original): The stacked photovoltaic element according to Claim 1, wherein at least one of the plurality of the unit photovoltaic elements has a pin-junction comprising an i-type layer composed of microcrystalline Si.

Claim 8. (original): The stacked photovoltaic element according to Claim 1, wherein at least one of the plurality of the unit photovoltaic elements has a pin-junction comprising an i-type layer composed of single-crystalline or poly-crystalline Si.

Claims 9 - 11. (canceled).

Claim 12. (currently amended): A method for producing a stacked photovoltaic element comprising an intermediate layer between unit photovoltaic elements each having a pn- or pin-junction, comprising the steps of:

~~stacking~~ depositing a first layer mainly composed of indium oxide on at least one interface with the unit photovoltaic element; and

~~stacking~~ depositing a second layer mainly composed of zinc oxide on and in direct contact with the first layer,

wherein the two layers are stacked to form the intermediate layer and the second layer is ~~formed~~ deposited at a rate higher than ~~that of~~ the first layer.

Claim 13. (currently amended): A method for producing a stacked photovoltaic element comprising an intermediate layer between unit photovoltaic elements each having a pn- or pin-junction, comprising the steps of:

~~stacking~~ depositing a first layer mainly composed of indium oxide on at least one interface with the unit photovoltaic element; and

~~stacking~~ depositing a second layer mainly composed of zinc oxide on and in direct contact with the first layer,

wherein the two layers are stacked to form the intermediate layer and the second layer is ~~formed~~ deposited at a temperature lower than ~~that of~~ the first layer.

Claims 14 - 17. (canceled).